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| 10/790,787  | 03/03/2004  | Takashi Sanse        | 2091-0313P          | 4365             |
| 2292 7590 11/27/2007<br>BIRCH STEWART KOLASCH & BIRCH<br>PO BOX 747 |             |                      | EXAMINER            |                  |
|   |             |                      | PARK, EDWARD        |                  |
| FALLS CHURCH, VA 22040-0747   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             | •                    | 2624                |                  |
|   | •           |                      |                     | ,                |
|   |             | •                    | NOTIFICATION DATE   | DELIVERY MODE    |
|   |             |                      | 11/27/2007          | ELECTRONIC       |

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

|  | Application No.   | Applicant(s)      |  |  |  |
|--|---|-------------------|--|--|--|
|  | 10/790,787  | SANSE ET AL.      |  |  |  |
| Office Action Summary  | Examiner  | Art Unit          |  |  |  |
| ·  | Edward Park   | 2624              |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |   |                   |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |                   |  |  |  |
| Status   |   |                   |  |  |  |
| 1) Responsive to communication(s) filed on 30 At   | Responsive to communication(s) filed on 30 August 2007.   |                   |  |  |  |
| · <del></del>  | This action is FINAL. 2b) ☐ This action is non-final.   |                   |  |  |  |
| , —  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is |                   |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |   |                   |  |  |  |
| Disposition of Claims  |   |                   |  |  |  |
| 4)⊠ Claim(s) <u>1-3, 6-12</u> is/are pending in the application.   |   |                   |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |                   |  |  |  |
| 5) Claim(s) is/are allowed.  |   |                   |  |  |  |
| 6)⊠ Claim(s) <u>1-3 and 6-12</u> is/are rejected.  |   |                   |  |  |  |
| 7) Claim(s) is/are objected to.  |   |                   |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.  |   |                   |  |  |  |
| Application Papers   |   |                   |  |  |  |
| 9) ☐ The specification is objected to by the Examiner.   |   |                   |  |  |  |
| 10)⊠ The drawing(s) filed on <u>03 June 2004</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.  |   |                   |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |                   |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |                   |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |                   |  |  |  |
| Priority under 35 U.S.C. § 119   |   |                   |  |  |  |
| 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |   |                   |  |  |  |
| a) ⊠ All b) □ Some * c) □ None of:   |   |                   |  |  |  |
| <ul> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> </ul>  |   |                   |  |  |  |
| Copies of the certified copies of the priority documents have been received in this National Stage   |   |                   |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |   |                   |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |                   |  |  |  |
|  |   |                   |  |  |  |
|  |   |                   |  |  |  |
| Attachment(s)  |   |                   |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)   | 4) Interview Summary  | (PTO-413)         |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Da   | ate               |  |  |  |
| Information Disclosure Statement(s) (PTO/SB/08)     Paper No(s)/Mail Date  | 5)  Notice of Informal P 6)  Other:   | atent Application |  |  |  |

# **DETAILED ACTION**

# Response to Amendment

1. This action is responsive to applicant's amendment and remarks received on 8/30/07. Claims 1-3 and 6-12 are currently pending.

# **Priority**

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

### Claim Objections

3. The previous claim objection of claim 12 has been withdrawn due to the correction of the improper form of a multiple dependent claim.

### Claim Rejections - 35 USC § 112

4. The previous claim rejections for claims 1, 4, 7, and 11 are withdrawn due to the applicant's amendments of the claims.

### Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lu et al. (US 5,432,864) with Li et al (US 7,024,033 B2), and further in view of Bennett (US 5,642,160).

Regarding claim 1, the Lu reference teaches an information storage area (fig. 4, numeral 31; "escort memory (e.g. a magnetic strip on a credit card)"; Lu: col. 9, lines 25-27) for storing at least personal information of the person of the face photo ("eigenface, eigenfeature parameters is then stored in escort memory"; Lu: col. 8, lines 40-46); code conversion means (fig. 2a, numeral 5; "image processing unit"; Lu: col. 7, lines 32-47) for converting the face photo data into code information ("image processing steps applied to the digital image include intensity normalization, background deletion, shade analysis...."; Lu: col. 7, lines 32-47); and code information recording means for storing the code information in the information storage area (fig. 3, numeral 12; "ID card writer 12 function as enrollment apparatus"; Lu: col. 8, lines 48-49).

The Lu reference does not teach photographic processing means for determining face photo data by utilizing a boosting technique, the face photo data representing a face photo area of a predetermined format by photographing the face photo area in an ID card comprising the face photo area having a face photo of the predetermined format.

Li teaches photographic processing means for (see figure 1, numeral 120 processor unit 120 processes images of figure 1, numeral 193 taken by the camera of figure 1, numeral 192) determining face photo data by utilizing a boosting technique (see col. 2, lines 27-46).

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It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu reference to utilize a boosting technique to determine face photo data of Li, in order to "make a strong classifier .. in the sense that fewer features are needed and higher accuracy is achieved for ... classification" for facial recognition purposes.

Bennett, in the same field of "capturing digital images of photo identification cards" (Bennett: col. 1, lines 7-10) teaches face photo data representing a face photo area of a predetermined format by photographing the face photo area in an ID card comprising the face photo area having a face photo of the predetermined format ("capture a digital image of the card"; Bennett: col. 3, line 16-17).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu with Li combination to utilize photo data that has an face photo area of an ID card of Bennett, in order to "prevent others from making copies of the card" by "storing high quality digital image of the card" (Bennett: col. 1, lines 30-33) that further enhances biometric security.

Regarding **claim 6**, the Lu reference teaches:

an information storage area (fig. 4, numeral 31; "escort memory (e.g. a magnetic strip on a credit card)"; Lu: col. 9, lines 25-27) for storing at least personal information of the person of in the face photo ("eigenface, eigenfeature parameters is then stored in escort memory"; Lu: col. 8, lines 40-46), the information storage area stores code information generated by converting face photo data ("Eigenface, Eigenfeature parameters is then stored in escort memory"; Lu: col. 8, lines 40-46)

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information reading means for reading the personal information and the code information from the information storage area (fig. 3, numeral 12; "card reader"; Lu: col. 6, line 12).

Lu does not teach photographic processing means for determining photographed face data representing a face image of a holder of an ID card by utilizing a boosting technique, the face photo data including a face photo of a predetermined format; and face photo data obtained by photographing the face photo area and represents the face photo area of the predetermined format.

Li teaches photographic processing means for (see figure 1, numeral 120 processor unit 120 processes images of figure 1, numeral 193 taken by the camera of figure 1, numeral 192) determining face data by utilizing a boosting technique (see col. 2, lines 27-46).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu reference to utilize a boosting technique to determine face photo data of Li, in order to "make a strong classifier .. in the sense that fewer features are needed and higher accuracy is achieved for ... classification" for facial recognition purposes.

Bennett, in the same field of "capturing digital images of photo identification cards" (Bennett: col. 1, lines 7-10) teaches face photo data including a face photo of a predetermined format; and face photo data obtained by photographing the face photo area and represents the face photo area of the predetermined format ("capture a digital image of the card"; Bennett: col. 3, line 16-17).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu with Li combination to utilize photo data that has an face photo area of an ID card of Bennett, in order to "prevent others from making copies of the card" by "storing

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high quality digital image of the card" (Bennett: col. 1, lines 30-33) that further enhances biometric security.

Regarding claim 7, the Lu reference teaches a display means for displaying at least the photographed face data ("generates an image of a person .. with other data stored on a card, badge, or tag carried by the person whose image is to be generated"; Lu: col. 5, lines 64-68)

7. Claims 2, 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lu et al. (US 5,432,864), Li et al (US 7,024,033 B2), Bennett (US 5,642,160) as applied to claim 1 above, and further in view of Sakuramoto (JP 2002-152492).

Regarding claim 2, the Lu, Li, and Bennett combination as applied to claim 1 teaches a photography means for obtaining original image data representing an original image including the face of the person, the ID card of whom is being generated, by photographing the face (fig. 2a, numeral 28a; "video camera apparatus is used to obtain pictures of each of the selected individuals"; Lu: col. 6, lines 58-59).

The Lu, Li, and Bennett combination does not disclose eye position detection means for detecting center positions of eyes in the face in the original image; normalization means for obtaining a normalized original image by normalizing the original image in such a manner that a distance between the center positions of the eyes that have been detected becomes a predetermined value; and cutting means for obtaining face image data representing the face photo by cutting an image having the predetermined format from the normalized original image with reference to the distance between the center positions of the eyes in the face in the normalized original image.

Sakuramoto teaches:

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eye position detection means for detecting center positions of eyes in the face in the original image ("algorithm which detects the location equivalent to the eyes"; "location which corresponds in the center of abbreviation along the longitudinal direction which intersects perpendicularly in the direction of top and bottom of the location which is equivalent to the detected both-eyes section in invention according to claim 3 So that it may consider as the center position of the trimming field along a longitudinal direction"; Sakuramoto: paragraph [0021]), ("detects respectively the location equivalent to the location and the eye section equivalent"; Sakuramoto: paragraph [0030]);

normalization means for obtaining a normalized original image by normalizing the original image in such a manner that a distance between the center positions of the eyes that have been detected becomes a predetermined value ("trimming field to said subject-copy image is set up based on the location equivalent to the location and the eye section equivalent"; Sakuramoto: paragraph [0029]); and

cutting means for obtaining face image data representing the face photo by cutting an image having the predetermined format from the normalized original image with reference to the distance between the center positions of the eyes in the face in the normalized original image ("sets up the trimming field to said subject-copy image"; Sakuramoto: paragraph [0030]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu, Li, and Bennett combination as applied to claim 1, to include eye position detection, normalization, and cutting of Sakuramoto, in order to "mitigate the burden of the operator at the time of setting up of a trimming field" and isolate the facial features in a "short time [with a] high degree of accuracy" (Sakuramoto: paragraph [0009] and [0014]).

Regarding **claim 3**, the Lu, Li, and Bennett combination as applied to claim 1 discloses photography means, an information storage area, code conversion means, and code information recording means.

The Lu, Li, and Bennett combination does not disclose eye position detection means for detecting center positions of eyes in the face in an original image represented by original image data obtained by photographing the face photo area; normalization means for obtaining a normalized original image by normalizing the original image in such a manner that a distance between the center positions of the eyes that have been detected becomes a predetermined value; and cutting means for obtaining face image data representing the face photo by cutting an image having the predetermined format from the normalized original image with reference to the distance between the center positions of the eyes in the face in the normalized original image.

#### Sakuramoto teaches:

eye position detection means for detecting center positions of eyes in the face in an original image represented by original image data obtained by photographing the face photo area ("algorithm which detects the location equivalent to the eyes"; "location which corresponds in the center of abbreviation along the longitudinal direction which intersects perpendicularly in the direction of top and bottom of the location which is equivalent to the detected both-eyes section in invention according to claim 3 So that it may consider as the center position of the trimming field along a longitudinal direction"; Sakuramoto: paragraph [0021]), ("detects respectively the location equivalent to the location and the eye section equivalent"; Sakuramoto: paragraph [0030]);

normalization means for obtaining a normalized original image by normalizing the

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original image in such a manner that a distance between the center positions of the eyes that have been detected becomes a predetermined value ("trimming field to said subject-copy image is set up based on the location equivalent to the location and the eye section equivalent"; Sakuramoto: paragraph [0029]); and

cutting means for obtaining face image data representing the face photo by cutting an image having the predetermined format from the normalized original image with reference to the distance between the center positions of the eyes in the face in the normalized original image ("sets up the trimming field to said subject-copy image"; Sakuramoto: paragraph [0030]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu, Li, and Bennett combination as applied to claim 1, to include eye position detection, normalization, and cutting of Sakuramoto, in order to "mitigate the burden of the operator at the time of setting up of a trimming field" and isolate the facial features in a "short time [with a] high degree of accuracy" (Sakuramoto: paragraph [0009] and [0014]).

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lu et al. (US 5,432,864), Li et al (US 7,024,033 B2) with Bennett (US 5,642,160) as applied to claim 6 above, and further in view of Simon (US 2003/0086591 A1).

Regarding **claim 8**, the Lu, Li, and Bennett combination as applied to claim 6 teaches registration means for registering personal information and code information of a large number of people (fig 2a, 2b, numeral 6; Lu);

code conversion means for converting the photographed face data into code information (fig. 2b, numeral 7; "calculational process forms a standard set of principal facial feature components, or "Eigenfeatures"; Lu: col. 8, lines 12-15);

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code judgment means for carrying out judgment as to whether or not the code information obtained by the code conversion means mostly agrees with the correlation code information (fig. 3, numeral 17; "comparison with the Eigenface parameters that were previously read from the escort memory is then employed to validate the cardholder's identity"; Lu: col. 9, lines 32-35); and

authentication information output means for outputting authentication information representing that the holder has been authenticated in the case where results of the judgment by the information judgment means and the code judgment means are both affirmative (fig. 3, numerals 18, 21; "the decision output module 18 will issue an authorization message 19 that allows e.g. access to a controlled area", "decision module 18 will issue a message (displayable e.g. on terminal 21)"; Lu: col. 9, lines 46-64).

The Lu, Li, and Bennett combination does not teach information judgment means for carrying out judgment as to whether or not correlation personal information and correlation code information respectively corresponding to the personal information and the code information that has been read has been registered with the registration means.

Simon, in the same field of "personal identity cards that are tamper-proof and machine readable" (Simon: paragraph [0001]), teaches information judgment means for carrying out judgment as to whether or not correlation personal information and correlation code information respectively corresponding to the personal information and the code information that has been read has been registered with the registration means ("means for validating the card by allowing a comparison of biometric data stored in a database of central registry with biometric data taken from the person presenting the ID card"; Simon: paragraph [0012]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu, Li, and Bennett combination as applied to claim 1, to include information judgment means of Simon, in order to "validate the ID card itself and the identity of the card bearer" (Simon: paragraph [0012]).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lu et al. (US 5,432,864), Li et al (US 7,024,033 B2), Bennett (US 5,642,160), and Simon (US 2003/0086591 A1) as applied to claim 6 above, and further in view of Sakuramoto (JP 2002-152492).

Regarding **claim 9**, the Lu, Li, Bennett, with Simon combination as applied to claim 6 discloses all elements within claim 6.

The Lu, Li, Bennett, with Simon combination does not disclose eye position detection means for detecting center positions of eyes in the face in an original image represented by original image data obtained by photographing the face photo area; normalization means for obtaining a normalized original image by normalizing the original image in such a manner that a distance between the center positions of the eyes that have been detected becomes a predetermined value; and cutting means for obtaining face image data representing the face photo by cutting an image having the predetermined format from the normalized original image with reference to the distance between the center positions of the eyes in the face in the normalized original image.

Sakuramoto teaches:

eye position detection means for detecting center positions of eyes in the face in an

original image represented by original image data obtained by photographing the face photo area ("algorithm which detects the location equivalent to the eyes"; "location which corresponds in the center of abbreviation along the longitudinal direction which intersects perpendicularly in the direction of top and bottom of the location which is equivalent to the detected both-eyes section in invention according to claim 3 So that it may consider as the center position of the trimming field along a longitudinal direction"; Sakuramoto: paragraph [0021]), ("detects respectively the location equivalent to the location and the eye section equivalent"; Sakuramoto: paragraph [0030]);

normalization means for obtaining a normalized original image by normalizing the original image in such a manner that a distance between the center positions of the eyes that have been detected becomes a predetermined value ("trimming field to said subject-copy image is set up based on the location equivalent to the location and the eye section equivalent"; Sakuramoto: paragraph [0029]); and

cutting means for obtaining face image data representing the face photo by cutting an image having the predetermined format from the normalized original image with reference to the distance between the center positions of the eyes in the face in the normalized original image ("sets up the trimming field to said subject-copy image"; Sakuramoto: paragraph [0030]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu, Li, Bennett, with Simon combination as applied to claim 6, to include eye position detection, normalization, and cutting of Sakuramoto, in order to "mitigate the burden of the operator at the time of setting up of a trimming field" and isolate the facial features in a "short time [with a] high degree of accuracy" (Sakuramoto: paragraph [0009] and [0014]).

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10. Claims 10, 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu et al. (US 5,432,864), Li et al (US 7,024,033 B2), Bennett (US 5,642,160) with Simon (US 2003/0086591 A1), and further in view of Wood (US 2002/0116626 A1).

Regarding **claim 10**, the Lu reference teaches a face authentication apparatus comprising: registration means for registering personal information and code information of a large number of people (fig 2a, 2b, numeral 6; Lu);

code conversion means for converting the photographed face data into code information (fig. 2b, numeral 7; "calculational process forms a standard set of principal facial feature components, or "Eigenfeatures"; Lu: col. 8, lines 12-15);

code judgment means for carrying out judgment as to whether or not the code information obtained by the code conversion means mostly agrees with the correlation code information (fig. 3, numeral 17; "comparison with the Eigenface parameters that were previously read from the escort memory is then employed to validate the cardholder's identity"; Lu: col. 9, lines 32-35); and

authentication information output means for outputting authentication information representing that the holder has been authenticated in the case where results of the judgment by the information judgment means and the code judgment means are both affirmative (fig. 3, numerals 18, 21; "the decision output module 18 will issue an authorization message 19 that allows e.g. access to a controlled area", "decision module 18 will issue a message (displayable e.g. on terminal 21)"; Lu: col. 9, lines 46-64).

The Lu reference does not teach information acquisition means, information judgment means for carrying out judgment as to whether or not correlation personal information and

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correlation code information respectively corresponding to the personal information and the code information that has been obtained has been registered with the registration means.

Simon, in the same field of "personal identity cards that are tamper-proof and machine readable" (Simon: paragraph [0001]), teaches information judgment means for carrying out judgment as to whether or not correlation personal information and correlation code information respectively corresponding to the personal information and the code information that has been read has been registered with the registration means ("means for validating the card by allowing a comparison of biometric data stored in a database of central registry with biometric data taken from the person presenting the ID card"; Simon: paragraph [0012]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu reference, to include information judgment means of Simon, in order to "validate the ID card itself and the identity of the card bearer" (Simon: paragraph [0012]).

Wood, in the same field of "authentication system" (Wood: paragraph [0002]), teaches information acquisition means for obtaining the photographed face data, the personal information, and the code information (fig. 1, numeral 140; "network 140 may be wired such as fiber optic telephone network; wireless"; Wood: paragraph [0019]) obtained by the face authentication terminal in Claim 6 (see combination, rejection, motivation above in claim 6).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu and Simon combination as stated above, to include an information acquisition means of Wood, in order to provide an accessible, multi-faceted interface to the user for verification and authentication purposes.

Regarding claim 11, the Lu reference teaches a face authentication apparatus comprising:

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registration means for registering personal information and code information of a large number of people (fig 2a, 2b, numeral 6; Lu);

code conversion means for converting the photographed face data into code information (fig. 2b, numeral 7; "calculational process forms a standard set of principal facial feature components, or "Eigenfeatures"; Lu: col. 8, lines 12-15);

code judgment means for carrying out judgment as to whether or not the code information obtained by the code conversion means mostly agrees with the correlation code information (fig. 3, numeral 17; "comparison with the Eigenface parameters that were previously read from the escort memory is then employed to validate the cardholder's identity"; Lu: col. 9, lines 32-35); and

authentication information output means for outputting authentication information representing that the holder has been authenticated in the case where results of the judgment by the information judgment means and the code judgment means are both affirmative (fig. 3, numerals 18, 21; "the decision output module 18 will issue an authorization message 19 that allows e.g. access to a controlled area", "decision module 18 will issue a message (displayable e.g. on terminal 21)"; Lu: col. 9, lines 46-64).

The Lu reference does not teach the face authentication terminal according to Claim 6, information acquisition means, information judgment means for carrying out judgment as to whether or not correlation personal information and correlation code information respectively corresponding to the personal information and the code information that has been obtained has been registered with the registration means, and the face authentication terminal and the face

authentication apparatus being connected to each other in a manner enabling transmission and reception of at least personal information.

Simon, in the same field of "personal identity cards that are tamper-proof and machine readable" (Simon: paragraph [0001]), teaches information judgment means for carrying out judgment as to whether or not correlation personal information and correlation code information respectively corresponding to the personal information and the code information that has been read has been registered with the registration means ("means for validating the card by allowing a comparison of biometric data stored in a database of central registry with biometric data taken from the person presenting the ID card"; Simon: paragraph [0012]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu reference, to include information judgment means of Simon, in order to "validate the ID card itself and the identity of the card bearer" (Simon: paragraph [0012]).

Wood, in the same field of "authentication system" (Wood: paragraph [0002]), teaches: the face authentication terminal (fig. 1, numeral 110; "authentication device") according to Claim 6 (see combination, rejection, and motivation above in claim 6);

information acquisition means for obtaining the photographed face data, the personal information, and the code information obtained by the face authentication terminal (fig. 1, numeral 140; "network 140 may be wired such as fiber optic telephone network; wireless"; Wood: paragraph [0019]); and

the face authentication terminal and the face authentication apparatus are connected to each other in a manner enabling transmission and reception (fig. 1, numeral 140; "network 140 may be wired such as fiber optic telephone network; wireless"; Wood: paragraph [0019]).

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It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lu and Simon combination as stated above, to include face authentication terminal, information acquisition means, and a connection between the authentication terminal and apparatus of Wood, in order to have an authentication device "whose applicability can be greatly expanded" by allowing "active modification/update of the [data]" (Wood: paragraph [0007]).

Regarding claim 12, Lu, Li with Bennett combination teaches an ID card generation apparatus as including: .... See above rejection of claim 1 for the rejection of claim 12.

# Response to Arguments

11. Applicant's arguments with respect to claims 1, 2, 3, 6, 7, 8, 9, 10, 11, 12 have been considered but are moot in view of the new ground(s) of rejection.

#### Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Park whose telephone number is (571) 270-1576. The examiner can normally be reached on M-F 09:00-17:00, (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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